

FIG. 1

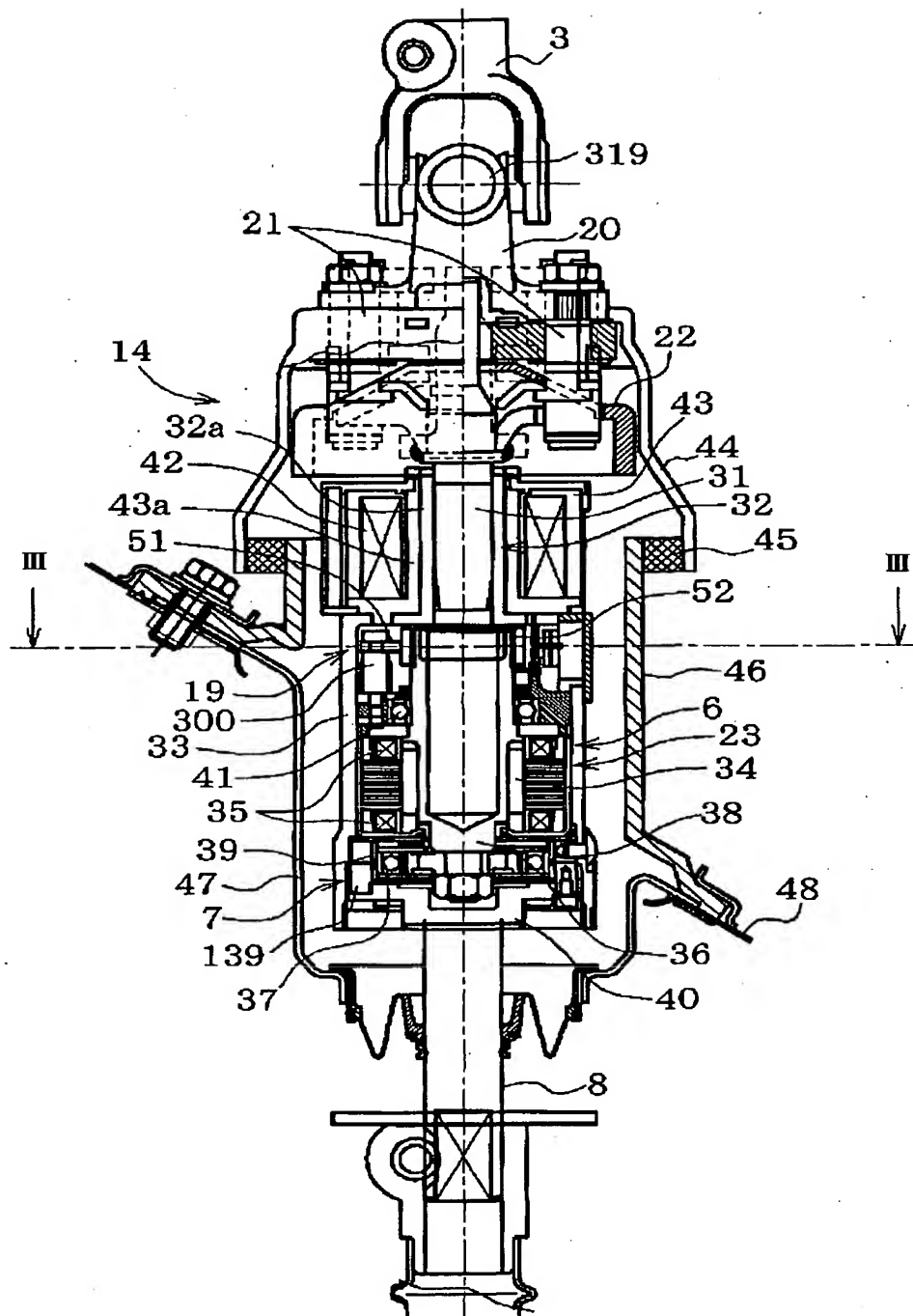


FIG. 2

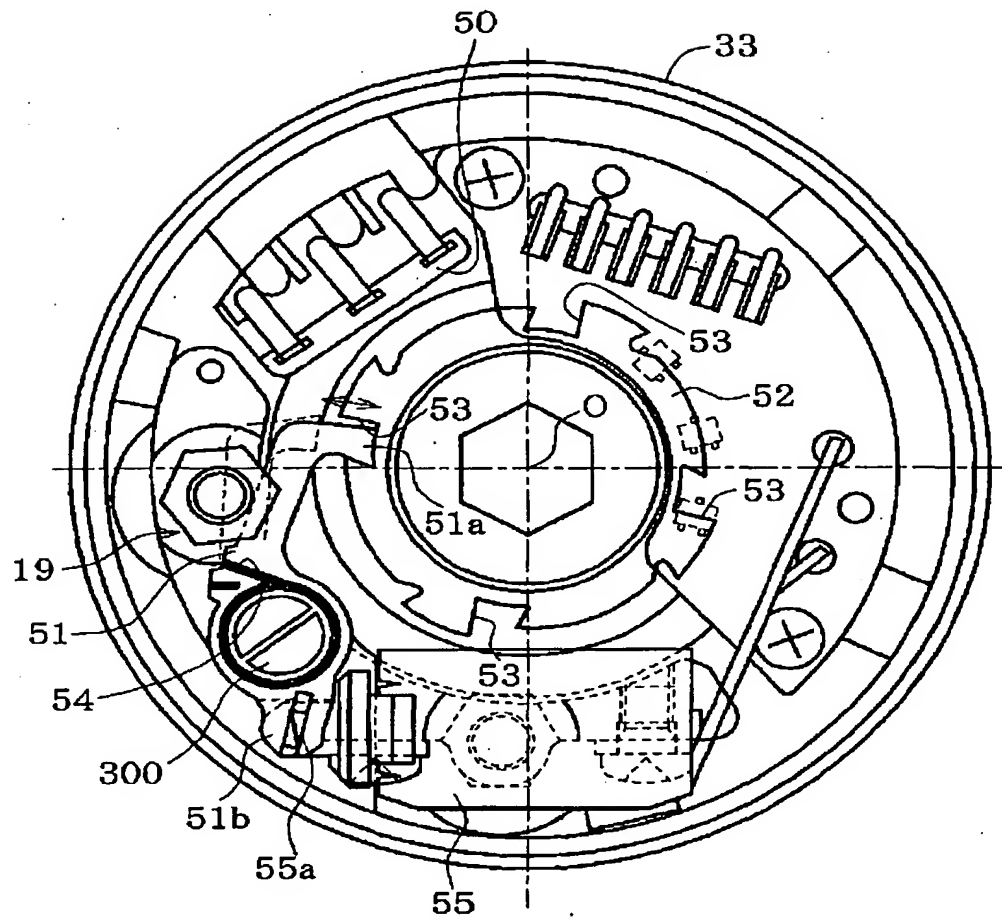


FIG. 3

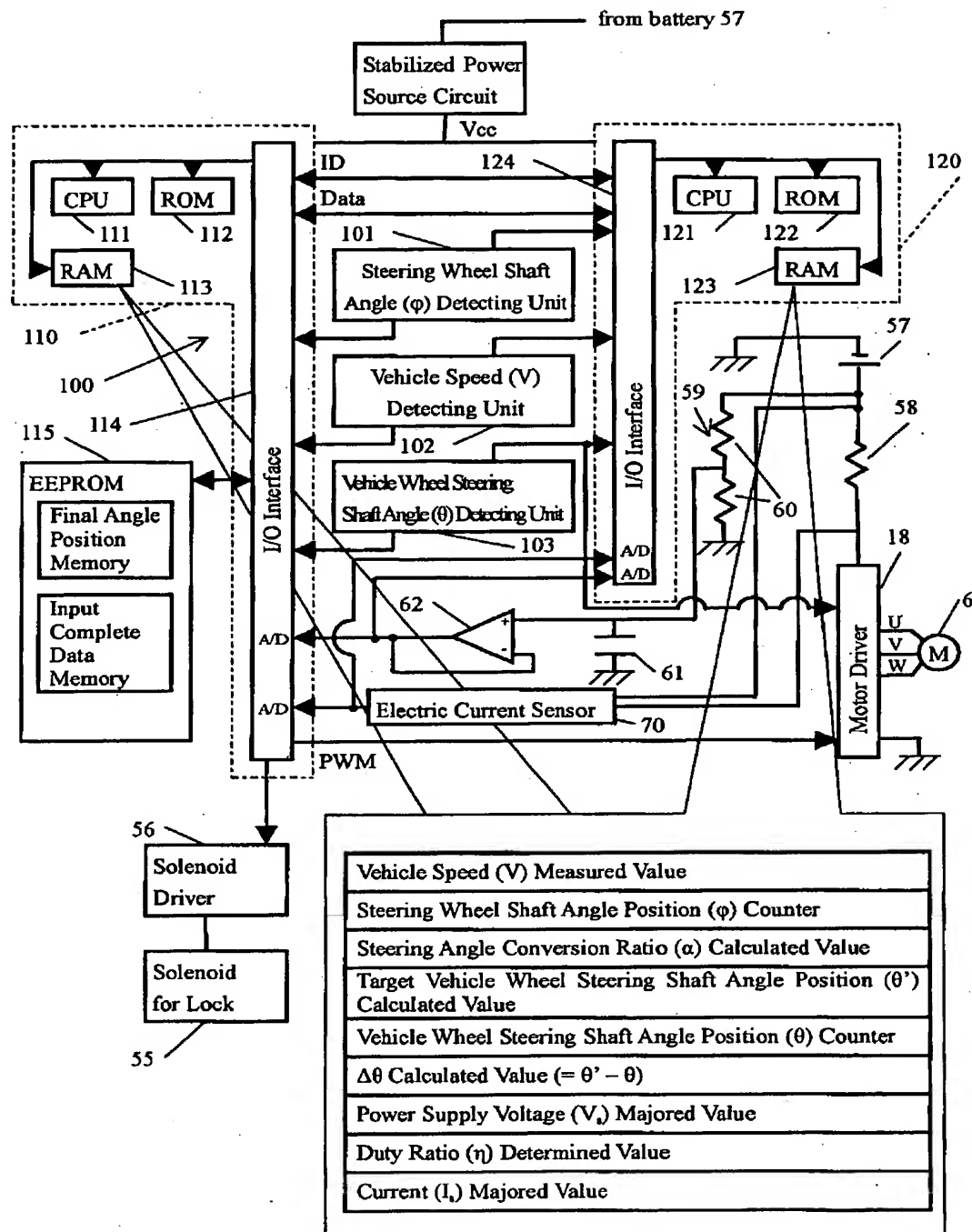


FIG. 4

130

Vehicle Speed (V)	V ₁	V ₂	V ₃	.....	V _n
Steering Angle Exchanging Ratio (α)	α ₁	α ₂	α ₃	.....	α _n

$\alpha = \theta / \varphi$ φ : Angular position of handle shaft
 θ : Angular position of steering shaft

FIG. 5

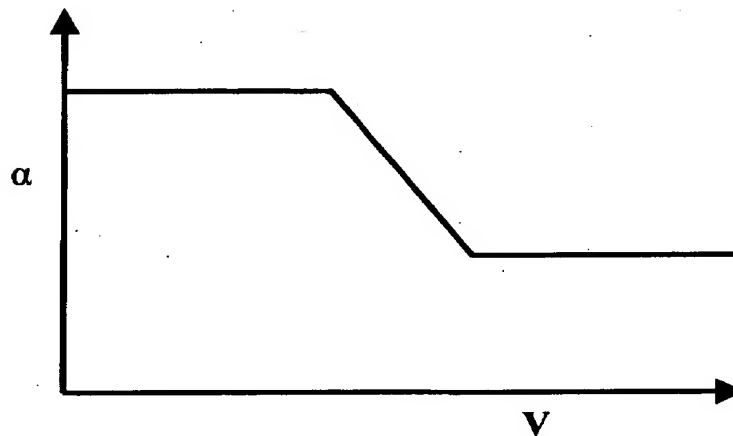


FIG. 6

131

$\Delta\theta \backslash V_i$	V _{s1}	V _{s2}	V _{s3}	V _{s4}	.....	V _{sn}
$\Delta\theta_1$	η_{11}	η_{12}	η_{13}	η_{14}	.....	H_{1n}
$\Delta\theta_2$	η_{21}	η_{22}	η_{23}	η_{24}	.....	H_{2n}
$\Delta\theta_3$	η_{31}	η_{32}	η_{33}	η_{34}	.....	H_{3n}
$\Delta\theta_4$	η_{41}	η_{42}	η_{43}	η_{44}	.....	H_{4n}
....
$\Delta\theta_m$	η_{m1}	η_{m2}	η_{m3}	η_{m4}	.....	η_{mn}

η : Duty Ratio θ' : Target angular position of steering shaft
 $\Delta\theta = \theta' - \theta$ θ : Present angular position of steering shaft

FIG. 7

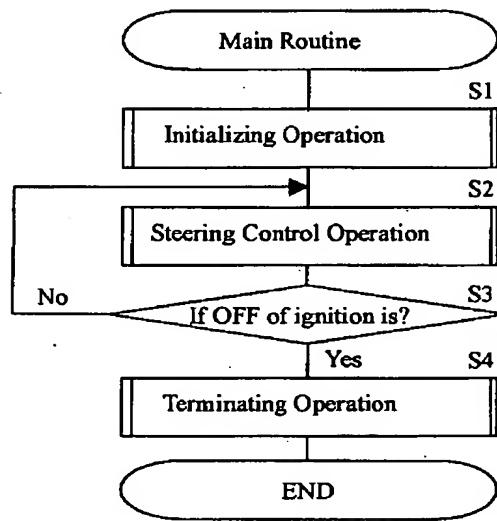


FIG. 8

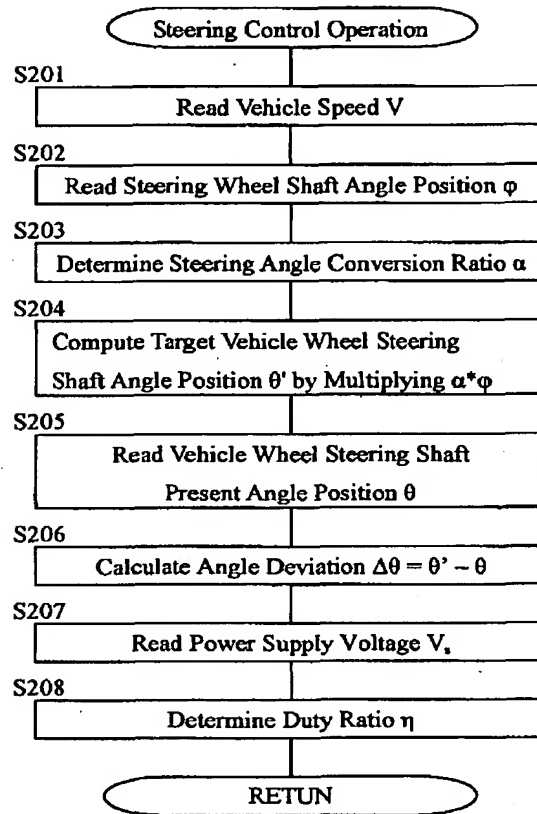


FIG. 9

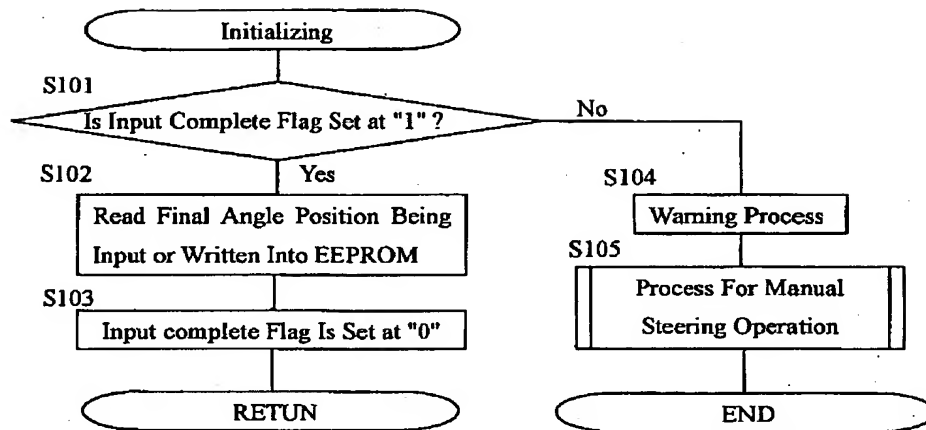


FIG. 10

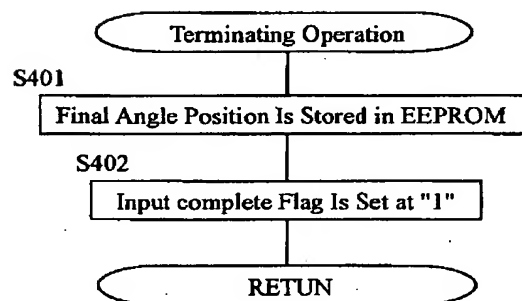


FIG. 11

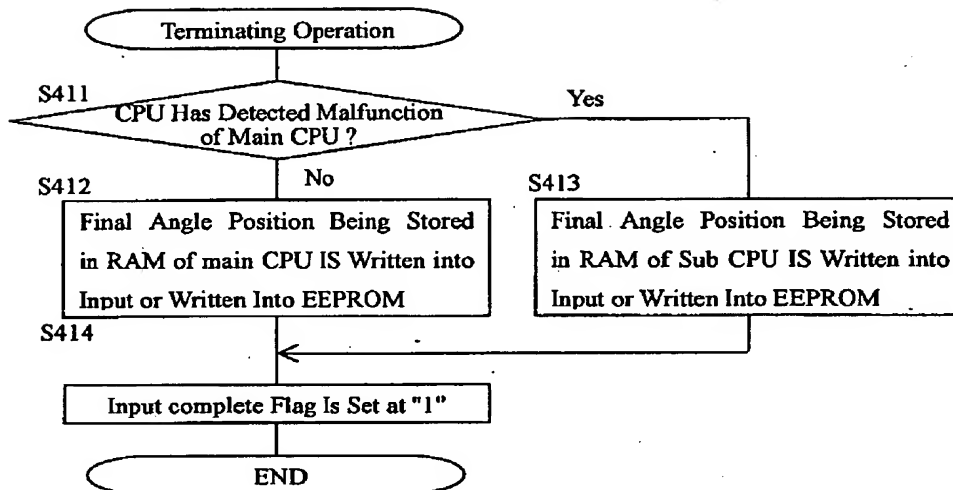


FIG. 12

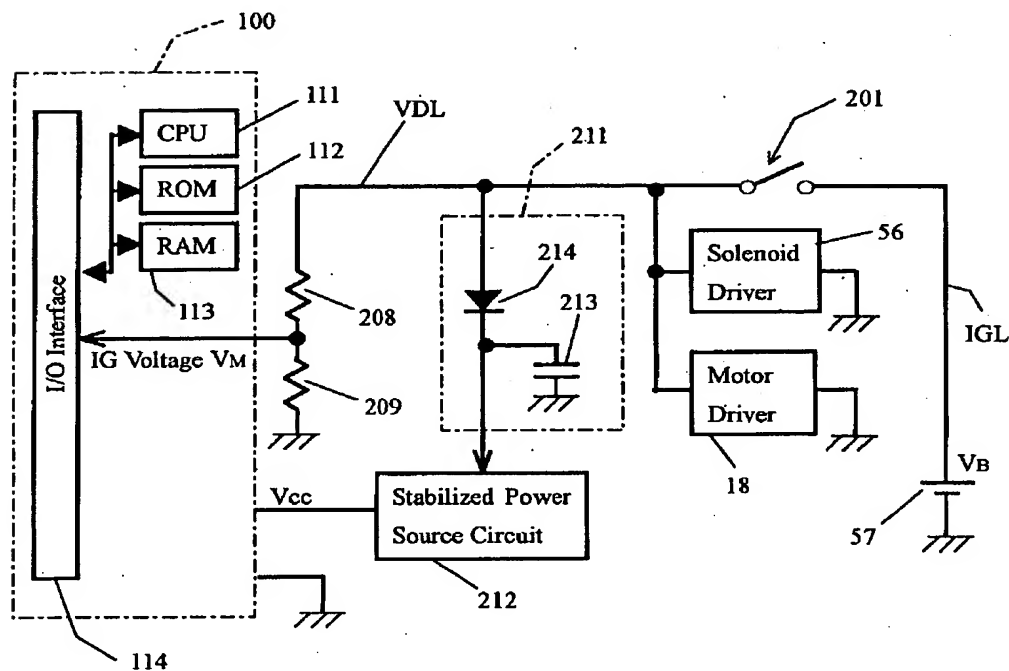


FIG. 13